

## Mr. Vance A. Deason

Extensive experience and discovery in the areas of sensors, optical and ultrasonic imaging.

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**Education:** Vance Deason received his B.S. in physics at the University of

Colorado in Boulder.

## Licensing information

For information on licensing INL technologies such as those developed by Mr. Deason, contact the Lead Account Executive for Industrial Processing and Manufacturing:

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**Work experience:** After receiving his degree, Mr. Deason worked at the National Bureau of Standards in Boulder, Colo., where he worked on sensor development for both cryogenic and plasma physics research projects. During this period, he took a break for a Peace Corps assignment in Borneo, where he taught Science and spoken English at the junior high through sophomore college level, and traveled extensively.

He has been at the INL since 1977, where he has worked on numerous sensor and optical imaging problems. He is presently a Consulting Scientist in the Physics Department.

**Professional endeavors:** Currently, he is developing applications for the ultrasonic imaging technology he helped invent. He is also interested in collaborative projects with members of other disciplines, both at the INL and elsewhere. He is interests include holography, interferometry, imaging, microfabrication, and the development of sensors, tools and diagnostic methods for scientific and industrial applications.

## Patents:

- ▶ U.S. Patent No. 4,850,693 Compact, Portable Diffraction Moiré Interferometer
- ▶ U.S. Patent No. 4,995,260 Non-destructive Material Characterization
- U.S. Patent No. 5,003,600 Diffraction Gratings Used as Identifying Markers
- U.S. Patent No. 5,016,951 Fiber Optic Diffraction Grating Maker
- ▶ U.S. Patent No. 5,026,154 Multipulsed Dynamic Moiré Interferometer
- ▶ U.S. Patent No. 5,048,969 Piezoelectric Measurement of Laser Power
- ▶ U.S. Patent No. 5,231,468 Beam Shuttering Interferometer and Method
- ▶ U.S. Patent No. 5,349,442 Hand Held Phase –Shifting Diffraction Moiré Interferometer
- ▶ U.S. Patent No. 5,822,074 Retroreflective System for Remote Readout
- U.S. Patent No. 6,134,006 Imaging Photorefractive Optical Vibration Measurement Method and Device
- ▶ U.S. Patent No. 6,175,411 Apparatus and Method for Measuring and Imaging Traveling Waves
- ▶ U.S. Patent No. 6,401,540 Method and Apparatus for Detecting Internal Structures of Bulk Objects Using Acoustic Imagining
- U.S. Patent No. 6,486,902 Method and Apparatus for Assessing Material Properties of Sheet-Like Materials
- ▶ U.S. Patent No. 6,836,336 Inspection Systems Calibration Methods
- U.S. Patent No. 6,847,584 Method and Apparatus for Acoustic Imaging of Objects in Water